

**REMARKS**

Claims 1-16 are pending in this application. By this Amendment, new claims 14-16 are added. Support for new claim 14 can be found at least at page 9, lines 22 - page 10, line 7; page 13, lines 1-5; page 12, lines 4-7 and page 12, lines 21-26. Support for claim 15 can be found at least at page 17, lines 9-20. Support for claim 16 can be found at least at page 17, lines 21-26. No new matter is added. In view of the foregoing amendments and the following remarks, reconsideration and allowance are respectfully requested.

**I. Rejections Under 35 U.S.C. §102**

Claims 1, 8-10 and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by Inagaki et al., U.S. Patent No. 6,696,197 (hereinafter "Inagaki"). Applicants respectfully traverse the rejection.

The claimed invention is directed to a liquid absorbing sheet comprising a liquid absorbing resin layer, wherein the liquid absorbing resin layer is obtained by irradiating UV-rays onto a monomer composition to polymerize the monomer composition, the monomer composition containing: a monofunctional monomer component containing a monofunctional monomer capable of forming a homopolymer that is soluble in a nonaqueous solvent used in a nonaqueous electrolyte secondary battery; and a polyfunctional monomer component.

The Office Action asserts that Inagaki discloses a liquid absorbing polymeric material formed into a sheet designed to absorb electrolyte, in which the absorbing sheets may contain monofunctioning monomers and polyfunctioning monomers. See Office Action, at page 2, lines 11-14. Applicants respectfully disagree, because the reference does not disclose a liquid absorbing polymeric material having polyfunctional monomers. Inagaki discloses an electrolyte absorbing sheet that is a polymeric material having a positive or zero osmotic pressure relative to the electrolyte. See Inagaki at col. 14, lines 3-8. Further, Inagaki teaches

that it is desirable to use a homopolymer or a copolymer of carbonate and olefinic hydrocarbon and provides five examples thereof. See Inagaki at col. 14, lines 3-16.

On the other hand, the claimed invention is directed to a liquid absorbing sheet comprising a liquid absorbing resin layer, wherein the liquid absorbing resin layer comprises a monofunctional monomer component and a polyfunctional monomer component. The polyfunctional monomer component serves to introduce crosslinks in the liquid absorbing resin layer 1. However, Inagaki does not teach a liquid absorbing layer with a polyfunctional monomer component.

Because the reference does not disclose at least this feature, the reference does not anticipate claim 1. Claims 8-10 and 13 are dependent from claim 1 and, thus, are not also anticipated by Inagaki. Reconsideration and withdrawal are respectfully requested.

## **II. Claim Rejections Under 35 U.S.C. §103**

### **A. Inagaki**

Claims 2-7 and 12 are rejected under 35 U.S.C. §103(a) as being unpatented over Inagaki. Applicants respectfully traverse the rejection.

As discussed in detail above, the claimed invention is directed to a liquid absorbing sheet comprising a liquid absorbing layer, wherein the liquid absorbing layer comprises a monofunctional monomer component and a polyfunctional monomer component. Inagaki does not teach, or suggest, a liquid absorbing sheet comprising a polyfunctional monomer component.

With respect to claims 2 and 3, the Office Action asserts that Inagaki does not disclose solubility parameters, but that these properties are inherent, because physical properties of similar materials will inherently be similar. See Office Action, at page 3, lines 10-14.

Inagaki does not teach or suggest a liquid absorbing sheet comprising a polyfunctional monomer. The physical properties of the claimed material and the physical properties

reference material are not similar. Therefore, the claimed parameters are not inherently similar to the materials disclosed in Inagaki.

With respect to claims 4-7 and 12, the Office Action admits that Inagaki does not disclose UV-polymerization initiator per weight of monomer and irradiation with UV-rays. Nevertheless, the Office Action concludes that the patentability of a product is independent of how it is made. Applicants respectfully disagree with the Office Action's conclusion.

As discussed above, the product disclosed in the reference does not anticipate, nor would it have rendered obvious, the claimed invention. Inagaki does not teach or suggest a liquid absorbing sheet comprising a liquid absorbing resin layer wherein the liquid absorbing resin layer comprises a monofunctional monomer compound and a polyfunctional monomer compound. Moreover, nothing in the reference teaches a liquid absorbing layer obtained by irradiating UV-rays onto a monomer composition to polymerize the monomer composition. In fact, the reference does not teach or suggest any process for preparing the absorbing sheet, but merely provides for an electrolyte sheet to be formed of paper, unwoven fabric or various liquid absorbing polymeric materials. See Inagaki at col. 13, line 67 - col. 14, line 3.

For at least these reasons, claims 2-7 and 12 would not have been obvious over Inagaki. Reconsideration and withdrawal of the rejection are respectfully requested.

**B. Inagaki In View of Moritani**

Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Inagaki as applied to claims 1, 8-10 and 13 above in further view of Moritani, U.S. Patent No. 4,929,482 (hereinafter "Moritani"). Applicants respectfully traverse the rejection.

Neither Inagaki nor Moritani, alone or in combination, teach or suggest a liquid absorbing sheet comprising a liquid absorbing resin layer wherein the liquid absorbing resin layer contains a monofunctional monomer component and a polyfunctional monomer component. As discussed in detail above, the claimed invention is directed to a liquid

absorbing sheet comprising a liquid absorbing resin layer, wherein the liquid absorbing resin layer comprises a monofunctional component and a polyfunctional monomer component.

Moritani teaches a heat-resistant plastic container for food storage. Although Moritani teaches biphenols are heat stabilizers, the stabilizers are used in food containers rather than battery packs.

Since neither Inagaki nor Moritani, alone or in combination, teach or suggest a liquid absorbing sheet comprising a liquid absorbing resin layer wherein the liquid absorbing resin layer comprises a monofunctional monomer component and a polyfunctional monomer component, the claimed invention would not have been rendered obvious by Inagaki and Moritani.

For at least these reasons, claims 1, 8-10 and 13 would not have been obvious over Inagaki in view of Moritani. Reconsideration and withdrawal of the rejection are respectfully requested.

### **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

*Andrew B. Freistein*

James A. Oliff  
Registration No. 27,075

Andrew B. Freistein  
Registration No. 52,917

JAO:ABF/hms

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**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

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